AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions and listings, of claims in the application:

Listing of Claims:

Claims 1-58. (Cancelled).

Claim 59. (New): A method of identifying a herbicide comprising:

(a) contacting a host cell, said host cell including a polypeptide, said polypeptide having the biological activity of a phosphomevalonate kinase and comprising an amino acid sequence having at least 80% identity with the sequence according to SEQ ID NO:2, with a chemical compound or mixture of chemical compounds under conditions which permit the interaction of the chemical compound or the mixture of chemical compounds with the polypeptide,

(b) comparing the biological activity of the polypeptide in the presence of the chemical compound or the mixture of chemical compounds with the biological activity of the polypeptide in the absence of the chemical compound or the mixture of chemical compounds, and

(C) determining the chemical compound which specifically modulates the biological activity of the polypeptide.

Claim 60. (New): The method of Claim 59, wherein said polypeptide comprises the amino acid sequence of SEQ ID NO: 2.

Claim 61. (New): A method of finding a herbicide comprising:

(a) contacting a polypeptide having the biological activity of a phosphomevalonate kinase and comprising an amino acid sequence having at least 80% identity with the sequence according to SEQ ID NO: 2, with a chemical compound or a mixture of chemical compounds under conditions which permit the interaction of the chemical compound or mixture of chemical compounds with the polypeptide;

(b) comparing the biological activity of the polypeptide in the presence of the chemical compound or the mixture of chemical compounds with the biological activity of the polypeptide in the absence of the chemical compound or the mixture of chemical compounds, and

(c) determining the chemical compound which specifically modulates the biological activity of the polypeptide.

Claim 62. (New): The method of Claim 60, wherein said polypeptide comprises the amino acid sequence of SEQ ID NO: 2.